# Research Management Division Publications Catalogue 1986 Cumulation

## RMD Report 86/34

Alberta

86-03816/

**RESEARCH MANAGEMENT DIVISION EMBLEM**

The emblem represents the interdisciplinary and holistic nature of the Division's environmental research programs. Each of the five sections of the symbol represent comprehensive programs on air, water, land, humans and their constant interaction. The sections converge to form a cohesive chain, characteristic of an effective research organization. This cohesive bonding makes the sections blossom into the environment in the form of a flower — an Albertan wild rose.

# PUBLICATIONS CATALOGUE
# 1986 CUMULATION

APRIL 1986

RESEARCH MANAGEMENT DIVISION
Alberta Environment

Copies of this publication are available upon request from:

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This publication may be cited as:

Pringle, J., ed. 1986. Research Management Division, Alberta Environment: Publications catalogue. Research Management Division, Alberta Environment: Edmonton, Alberta. RMD 86/34. 92 pp.

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## INTRODUCTION

There are five series of reports published by the Research Management Division (RMD). These are:

1. **ALBERTA OIL SANDS ENVIRONMENTAL RESEARCH PROGRAM WIDE DISTRIBUTION REPORTS**

   AOSERP reports have been published from the inception of the Alberta Oil Sands Environmental Research Program (AOSERP) in 1975 to its termination in 1985. During that time, the AOSERP designation was given to all reports dealing with environmental research conducted principally within the Athabasca Oil Sands area in northeastern Alberta, although the Cold Lake and other oil sands areas of the province were also included. Following the incorporation of AOSERP into the regular program structure of RMD at the end of the 1984/85 fiscal year, the series was discontinued. Reports concerning environmental research in the oil sands regions are now listed under the RMD Wide Distribution, Limited, or Open File series noted below.

2. **RESEARCH MANAGEMENT DIVISION WIDE DISTRIBUTION REPORTS**

   RMD reports have been published since 1980. If a report is deemed to be of general interest, it is designated for wide distribution and 200 copies are printed.

3. **LIMITED DISTRIBUTION REPORTS**

   These are generally interim (project progress) reports or reports that, for various reasons, are deemed to be of only limited interest. Twenty copies are printed for distribution to depository libraries. This series contains both AOSERP and RMD reports.

4. **OPEN FILE REPORTS**

   Open File reports are those which, for various reasons, are not considered appropriate for wide or limited distribution. These are unedited, "information only" reports, hence 10 copies are printed and placed in the depository libraries.

5. **RESEARCH SECRETARIAT REPORTS**

   This report series began in 1975 and was terminated when the Research Management Division was formed in 1980. Some Research Secretariat reports are still available for distribution, but the series is essentially non-existent.

In addition to the reports published by RMD, this catalogue also provides a listing of reports produced by other agencies but available free of charge through RMD, a listing of papers based on research funded fully or in part through RMD, and a listing of Reclamation Research Technical Advisory

Committee (RRTAC) reports. The RRTAC reports must be ordered through the Queen's Printer, and there is a charge for each one, ranging from $5.00 to $20.00.

** IMPORTANT NOTE **

The cost and/or availability of the publications in each series report listing differs. Please refer to the information given at the beginning of each series listing to determine what reports are available, and where they may be obtained.

## REPORT AVAILABILITY

As indicated in the foregoing general descriptions of publications, reports are produced in limited quantities. As a result, certain reports are out of print and are no longer available from the Research Management Division. Please refer to the report series listings that follow for details regarding report availability.

To provide wider access to RMD publications and to ensure that out-of-print reports are accessible, the Publications Office has selected a number of alternate sources for publications. These locations are given at the beginning of the listings for each report series. Please keep in mind that Open File reports are available only from the libraries or from the photoduplicating or microfiching firms noted in the introduction to the Open File Series.

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Reports that are in print may be requested from:

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There is no charge for those Research Management Division reports that are in print and available through the Publications Office. Please give the report title and series number when ordering publications.

## NEW PUBLICATIONS BULLETIN

The Research Management Division publishes reports on a continuing basis. New reports are announced in the New Publications Bulletin, which is issued monthly. Reports must be ordered from the Publications Office.

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## ALBERTA OIL SANDS ENVIRONMENTAL RESEARCH PROGRAM
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Legislative Library
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Environment Canada
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AOSERP Wide Distribution reports can be purchased on microfiche or paper from the Microlog: Canadian Government Publications index service provided by:

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The Microlog order number is given where applicable for reports in the following list. The Microlog numbers must be quoted when ordering from Micromedia.

## ALBERTA OIL SANDS ENVIRONMENTAL RESEARCH PROGRAM (AOSERP) REPORTS

| Report | Project | Micrologic Number | References |
|---|---|---|---|
| 1 | PM | 76-0983 | Alberta Oil Sands Environmental Research Program. 1976. First annual report, 1975. Alberta Oil Sands Environmental Research Program. AOSERP Report 1. 58 pp. |
| 2 | AF 4.1.1 | 77-0149 | Kristensen, J., B.S. Ott, and A.D. Sekerak. 1976. Walleye and goldeye fisheries investigations in the Peace-Athabasca Delta--1975. Prep. for the Alberta Oil Sands Environmental Research Program by LGL Ltd., Environmental Research Associates. AOSERP Report 2. 103 pp. |
| 3 | HE 1.1.1 | 77-0149 | McVey, W.W. 1976. Structure of a traditional baseline data system. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Population Research Laboratory. AOSERP Report 3. 26 + 266 pp. |
| * 4 | VE 2.2 | 77-0365 | Stringer, P.W. 1976. A preliminary vegetation survey of the Alberta Oil Sands Environmental Research Program study area. Prep. for the Alberta Oil Sands Environmental Research Program by Intraverda Plant Systems Ltd. AOSERP Report 4. 108 pp. |
| * 5 | HY 3.1 | 77-0242 | Strosher, M.T. and E. Peake. 1976. The evaluation of wastewaters from an oil sand extraction plant. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Calgary, Environmental Sciences Centre (Kananaskis). AOSERP Report 5. 103 pp. |
| * 6 | PM | 77-0555 | Patterson, R. and A.M. Lansdown. 1976. Housing for the north--the stackwall system; construction report--Mildred Lake tank and pump house. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Manitoba, Faculty of Engineering, Northern Housing Committee. AOSERP Report 6. 36 pp. |

* Indicates out-of-print report.

| Report | Project | Microlog Number | References |
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| * 7 | AF 3.1.1 | 77-0149 | Jantzie, T.D. 1977. A synopsis of the physical and biological limnology and fishery programs within the Alberta oil sands area. Prep. for the Alberta Oil Sands Environmental Research Program by Renewable Resources Consulting Services Ltd. AOSERP Report 7. 73 pp. |
| * 8 | AF 1.2.1 | 77-0554 | Machniak, K. 1977. The impact of saline waters upon freshwater biota (a literature review and bibliography). Prep. for the Alberta Oil Sands Environmental Research Program by Aquatic Environments Ltd. AOSERP Report 8. 258 pp. |
| * 9 | ME 3.3 | 77-0555 | Croft, B.R., A. Lamb, and R.N. Dawson. 1977. A preliminary investigation into the magnitude of fog occurrence and associated problems in the oil sands area. Prep. for the Alberta Oil Sands Environmental Research Program by Stanley Associates Engineering Ltd. AOSERP Report 9. 87 pp. |
| *10 | HE 2.1 | 80-2755 | Millar, J.F.V. 1977. Development of a research design related to archaeological studies in the Athabasca Oil Sands area. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Saskatchewan. AOSERP Report 10. 69 pp. |
| *11 | AF 2.2.1 | 77-0555 | Flannagan, J.F. 1977. Life cycles of some common aquatic insects of the Athabasca River, Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 11. 20 pp. |
| *12 | ME 1.7 | 77-0481 | Mercer, J.M. and R.B. Charlton. 1977. Very high resolution meteorological satellite study of oil sands weather: "a feasibility study." Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Geography. AOSERP Report 12. 44 pp. |

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| *13 | ME 2.3.1 | 77-0553 | Davison, D.S., C.J. Fortems, and K.L. Grandia. 1977. **Plume dispersion measurements from an oil sands extraction plant, March 1976.** Prep. for the Alberta Oil Sands Environmental Research Program by Intera Environmental Consultants Ltd. AOSERP Report 13. 195 pp. |
| *14 | | | No report published. |
| *15 | ME 3.4 | 80-2759 | Denison, P.J. 1977. **A climatology of low-level air trajectories in the Alberta oil sands area.** Prep. for the Alberta Oil Sands Environmental Research Program by Acres Consulting Services. AOSERP Report 15. 118 pp. |
| *16 | ME 1.6 | 80-2760 | Barge, B.L., R.G. Humphries, and S.L. Olson. 1977. **The feasibility of a weather radar near Fort McMurray, Alberta.** Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Research Council, Atmospheric Sciences Division. AOSERP Report 16. 72 pp. |
| 17 | AF 2.1.1 | 80-2761 | Lutz, A. and M. Hendzel. 1977. **A survey of baseline levels of contaminants in aquatic biota of the AOSERP study area.** Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 17. 51 pp. |
| *18 | HY 1.1 | 80-2148 | Loeppky, K.D. and M.O. Spitzer. 1977. **Interim compilation of stream gauging data to December 1976 for the Alberta Oil Sands Environmental Research Program.** Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Water Survey Branch. AOSERP Report 18. 257 pp. |

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| *19 | ME 4.1 | 80-2762 | Walmsley, J.L. and D.L. Bagg. 1977. Calculations of annual averaged sulphur dioxide concentrations at ground level in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Atmospheric Environment Service. AOSERP Report 19. 40 pp. |
| *20 | HY 3.1.1 | 80-2149 | Strosher, M.T. and E. Peake. 1978. Characterization of organic constituents in waters and wastewaters of the Athabasca Oil Sands mining area. Prep. for the Alberta Oil Sands Environmental Program by the University of Calgary, Environmental Sciences Centre (Kananaskis). AOSERP Report 20. 71 pp. |
| 21 | PM | 78-0045 | Alberta Oil Sands Environmental Research Program. 1977. Second Annual Report, 1976-77. Alberta Oil Sands Environmental Research Program. AOSERP Report 21. 62 pp. |
| *22 | PM | 80-0351 | Smith, S.B., ed. 1979. Alberta Oil Sands Environmental Research Program interim report covering the period April 1975 to November 1978. Prep. by A.S. Mann, R.A. Hursey, R.T. Seidner, and B. Kasinska-Banas. AOSERP Report 22. |
| 23 | AF 1.1.2 | 79-5438 | Lake, W. and W. Rogers. 1979. Acute lethality of mine depressurization water to trout-perch and rainbow trout: Volume I. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Environment, Water Control Branch. AOSERP Report 23. 44 pp. |
| 24 | ME 1.5.2<br>ME 3.5.1 | 79-5605 | Fanaki, F., R. Mickle, M. Lusis, J. Kovalick, J. Markes, F. Froude, J. Arnold, A. Gallant, S. Melnichuk, D. Brymer, A. Gaudenzi, A. Moser, and D. Bagg. 1979. Air system winter field study in the AOSERP study area, February 1977. Prep. for the Alberta Oil Sands |

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| | | | Environmental Research Program by Fisheries and Environment Canada, Atmospheric Environment Service. AOSERP Report 24. 182 pp. |
| 25 | ME 3.5.1 | 80-2763 | Bottenheim, J.W. and O.P. Strausz. 1977. **Review of pollutant transformation processes relevant to the Alberta oil sands area.** Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Hydrocarbon Research Centre. AOSERP Report 25. 166 pp. |
| 26 | AF 4.5.1 | 80-0777 | Bond, W.A. and K. Machniak. 1977. **Interim report on an intensive study of the fish fauna of the Muskeg River watershed of northeastern Alberta.** Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Department of Fisheries. AOSERP Report 26. 137 pp. |
| 27 | ME 1.5.1 | 80-2150 | Fanaki, F., compiler. 1978. **Meteorology and air quality winter field study in the AOSERP study area, March 1976.** Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Atmospheric Environment Service. AOSERP Report 27. 249 pp. |
| *28 | VE 2.1<br>LS 2.1 | 80-2151 | Turchenek, L.W. and J.D. Lindsay. 1978. **Interim report on a soils inventory in the Athabasca oil sands area.** Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Research Council, Soils Division. AOSERP Report 28. 100 pp. |
| *29 | ME 2.2 | 78-0883 | Shelfentook, W. 1978. **An inventory system for atmospheric emissions in the AOSERP study area.** Prep. for the Alberta Oil Sands Environmental Research Program by SNC Tottrup Services Ltd. AOSERP Report 29. 58 pp. |

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| 30 | ME 2.1 | 78-0883 | Strosher, M.M. 1978. **Ambient air quality in the AOSERP study area, 1977.** Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Environment, Pollution Control Division. AOSERP Report 30. 74 pp. |
| *31 | VE 2.3<br>LS 2.3 | 80-2152 | Thompson, M.D., M.C. Wride, and M.E. Kirby. 1978. **Ecological habitat mapping of the AOSERP study area: Phase I.** Prep. for the Alberta Oil Sands Environmental Research Program by Intera Environmental Consultants Ltd. AOSERP Report 31. 176 pp. |
| 32 | PM | 80-0286 | Alberta Oil Sands Environmental Research Program. 1979. **Third Annual Report, 1977-78.** Alberta Oil Sands Environmental Research Program. AOSERP Report 32. 114 pp. |
| *33 | TF 1.2 | 79-0596 | Nowlin, R.A. 1978. **Relationships between habitats, forages, and carrying capacity of moose range in northern Alberta. Part I: moose preferences for habitat strata and forages.** Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Recreation, Parks and Wildlife, Fish and Wildlife Division. AOSERP Report 33. 63 pp. |
| *34 | HY 2.4 | 80-2153 | Allan, R. and T. Jackson. 1978. **Heavy metals in bottom sediments of the mainstem Athabasca River system in the AOSERP study area.** Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 34. 72 pp. |
| *35 | AF 4.9.1 | 80-2154 | Griffiths, W.H. and B.D. Walton. 1978. **The effects of sedimentation on the aquatic biota.** Prep. for the Alberta Oil Sands Environmental Research Program by Renewable Resources Consulting Services Ltd. AOSERP Report 35. 86 pp. |

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| 36 | AF 4.8.1 | 79-0956 | Jones, M.L., G.J. Mann, and P.J. McCart. 1978. **Fall fisheries investigations in the Athabasca and Clearwater rivers upstream of Fort McMurray: Volume 1.** Prep. for the Alberta Oil Sands Environmental Research Program by Aquatic Environments Ltd. AOSERP Report 36. 71 pp. |
| 37 | HE 2.2.2 | 80-2155 | Van Dyke, E.W. and C. Loberg. 1978. **Community studies: Fort McMurray, Anzac, Fort MacKay.** Prep. for the Alberta Oil Sands Environmental Research Program by Applied Research Associates Ltd. AOSERP Report 37. 195 pp. |
| *38 | VE 7.1.1 | 80-2156 | Green, J.E. 1979. **Techniques for the control of small mammal damage to plants: a review.** Prep. for the Alberta Oil Sands Environmental Research Program by LGL Ltd., Environmental Research Associates. AOSERP Report 38. 111 pp. |
| *39 | ME 1.0 | 79-5330 | Longley, R.W. and B. Janz. 1979. **The climatology of the Alberta Oil Sands Environmental Research Program study area.** Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Atmospheric Environment Service. AOSERP Report 39. 102 pp. |
| 40 | WS 3.3 | 79-5609 | Beltaos, S. 1979. **Mixing characteristics of the Athabasca River below Fort McMurray -- winter conditions.** Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Research Council, Transportation and Surface Water Engineering Division. AOSERP Report 40. 110 pp. |
| *41 | AF 3.5.1 | 80-2157 | Sprague, J.B., D.A. Holdway, and D. Stendahl. 1978. **Acute and chronic toxicity of vanadium to fish.** Prep. for the Alberta Oil Sands Environmental Research Program by the University of Guelph. AOSERP Report 41. 92 pp. |

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| 42 | TF 1.1.4 | 79-0598 | Todd, A. 1978. Analysis of fur production records for registered traplines in the AOSERP study area, 1970-75. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Recreation, Parks, and Wildlife. AOSERP Report 42. 17 pp. |
| *43 | TF 6.1 | 79-0597 | Phillips, W., D. DePape, and L. Ewanyk. 1979. A socioeconomic evaluation of the recreational use of fish and wildlife resources in Alberta, with particular reference to the AOSERP study area. Volume 1: summary and conclusions. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Rural Economy. AOSERP Report 43. 116 pp. |
| *44 | VE 3.1 | 80-2158 | Malhotra, S.S. and P.A. Addison. 1979. Interim report on symptomology and threshold levels of air pollutant injury to vegetation, 1975 to 1978. Prep. for the Alberta Oil Sands Environmental Research Program by Canadian Forestry Service, Northern Forest Research Centre. AOSERP Report 44. 13 pp. |
| *45 | VE 3.3 | 80-2159 | Malhotra, S.S. 1979. Interim report on physiology and mechanisms of air-borne pollutant injury to vegetation, 1975 to 1978. Prep. for the Alberta Oil Sands Environmental Research Program by Canadian Forestry Service, Northern Forest Research Centre. AOSERP Report 45. 38 pp. |
| *46 | VE 3.4 | 80-2160 | Addison, P.A. and J. Baker. 1979. Interim report on ecological benchmarking and biomonitoring for detection of air-borne pollutant effects on vegetation and soils, 1975 to 1978. Prep. for the Alberta Oil Sands Environmental Research Program by Canadian Forestry Service, Northern Forest Research Centre. AOSERP Report 46. 40 pp. |

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| 47 | TF 1.1.1 | 79-5443 | Cook, R.D. and J.O. Jacobson. 1979. **A visibility bias model for aerial surveys of moose on the AOSERP study area.** Prep. for the Alberta Oil Sands Environmental Research Program by Interdisciplinary Systems Ltd. AOSERP Report 47. 28 pp. |
| *48 | HG 1.1 | 79-5439 | Schwartz, F.W. 1979. **Interim report on a hydrogeological investigation of the Muskeg River basin, Alberta.** Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Geology. AOSERP Report 48. 104 pp. |
| *49 | WS 1.3.3 | 80-0772 | Hartland-Rowe, R.C.B., R.W. Davies, M. McElhone, and R. Crowther. 1979. **The ecology of macrobenthic invertebrate communities in Hartley Creek, northeastern Alberta.** Prep. for the Alberta Oil Sands Environmental Research Program by the University of Calgary, Department of Biology. AOSERP Report 49. 144 pp. |
| *50 | ME 3.6 | 79-5440 | Denison, P.J., T.A. McMahon, and J.R. Kramer. 1979. **Literature review on pollution deposition processes.** Prep. for the Alberta Oil Sands Environmental Research Program and Syncrude Canada Ltd. by Acres Consulting Services Limited and Earth Science Consultants Inc. AOSERP Report 50. 264 pp. |
| 51 | HY 1.3 | 79-5441 | Warner, L.S. and M.O. Spitzer. 1979. **Interim compilation of 1976 suspended sediment data for the AOSERP study area.** Prep. for the Alberta Oil Sands Environmental Research Program by Environment Canada, Water Survey of Canada. AOSERP Report 51. 59 pp. |
| 52 | ME 2.3.2 | 80-2161 | Davison, D.S. and K.L. Grandia. 1979. **Plume dispersion measurements from an oil sands extraction plant, June 1977.** Prep. for the Alberta Oil Sands Environmental Research Program by Intera |

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| | | | Environmental Consultants Ltd. AOSERP Report 52. 209 pp. |
| 53 | HY 3.1.2 | 79-5603 | Strosher, M.T. and E. Peake. 1979. **Baseline states of organic constituents in the Athabasca River system upstream of Fort McMurray.** Prep. for the Alberta Oil Sands Environmental Research Program by the University of Calgary, Environmental Sciences Centre (Kananaskis). AOSERP Report 53. 71 pp. |
| *54 | WS 2.3 | 79-5608 | Nix, P.G., J.W. Costerton, R. Ventullo, and R.T. Coutts. 1979. **A preliminary study of chemical and microbial characteristics of the Athabasca River in the Athabasca Oil Sands area in northeastern Alberta.** Prep. for the Alberta Oil Sands Environmental Research Program by Chemical and Geological Laboratories Ltd., Microbios Ltd., and Xenotox Services Ltd. AOSERP Report 54. 135 pp. |
| 55 | HY 2.6 | 79-5442 | Costerton, J. and G.G. Geesey. 1979. **Microbial populations in the Athabasca River.** Prep. for the Alberta Oil Sands Environmental Research Program by the University of Calgary, Department of Biology. AOSERP Report 55. 65 pp. |
| *56 | AF 3.2.1 | 79-5607 | Giles, M.A., J.F. Klaverkamp, and S.G. Lawrence. 1979. **The acute toxicity of saline groundwater and of vanadium to fish and aquatic invertebrates.** Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 56. 216 pp. |
| *57 | LS 2.3.1 | 80-2162 | Thompson, M.D. 1979. **Ecological habitat mapping of the AOSERP study area (supplement): Phase I.** Prep. for the Alberta Oil Sands Environmental Research Program by Intera Environmental Consultants Ltd. AOSERP Report 57. 45 pp. |

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| *58 | AF 2.0.2 | 80-0773 | Lock, M.A. and R.R. Wallace. 1979. **Interim report on ecological studies on the lower trophic levels of muskeg rivers within the Alberta Oil Sands Program study area.** Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada. AOSERP Report 58. 105 pp. |
| *59 | TF 3.1 | 79-5610 | Gilbert, F.F., S.A. Brown, and M.E. Stoll. 1979. **Semi-aquatic mammals: annotated bibliography.** Prep. for the Alberta Oil Sands Environmental Research Program by the University of Guelph, Department of Zoology. AOSERP Report 59. 167 pp. |
| *60 | WS 1.1.1 | 79-5604 | Neill, C.R. and B.J. Evans. 1979. **Synthesis of surface water hydrology.** Prep. for the Alberta Oil Sands Environmental Research Program by Northwest Hydraulic Consultants Ltd. AOSERP Report 60. 84 pp. |
| *61 | AF 4.5.2 | 80-0774 | Machniak, K. and W.A. Bond. 1979. **An intensive study of the fish fauna of the Steepbank River watershed of northeastern Alberta.** Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 61. 196 pp. |
| 62 | TF 5.1 | 79-5606 | Roberts, W., V. Lewin, and L. Brusnyk. 1979. **Amphibians and reptiles in the AOSERP study area.** Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Museum of Zoology. AOSERP Report 62. 51 pp. |
| 63 | ME 3.8.3 | 80-2163 | Davison, D.S. and E.D. Leavitt. 1979. **Analysis of AOSERP plume sigma data.** Prep. for the Alberta Oil Sands Environmental Research Program by Intera Environmental Consultants Ltd. AOSERP Report 63. 251 pp. |

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| *64 | LS 21.6.1 | 80-3256 | Thomson, D.C., D.M. Ealey, and K.H. McCourt. 1979. A review and assessment of the baseline data relevant to the impacts of oil sands developments on large mammals in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by McCourt Management Ltd. AOSERP Report 64. 155 pp. |
| 65 | LS 21.6.2 | 80-3101 | Penner, D.F., K.H. McCourt, and K.E. Smythe. 1979. A review and assessment of the baseline data relevant to the impacts of oil sands development on black bear in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by McCourt Management Ltd. AOSERP Report 65. 53 pp. |
| 66 | AS 4.3.2 | 80-0775 | Reid, J.D., J.L. Walmsley, I.B. Findleton, and A.D. Christie. 1979. An assessment of the models LIRAQ and ADPIC for application to the Alberta oil sands area. Prep. for the Alberta Oil Sands Environmental Research Program by Atmospheric Environment Service. AOSERP Report 66. 95 pp. |
| *67 | WS 1.3.2 | 80-0776 | Lock, M.A. and R.R. Wallace. 1979. Aquatic biological investigations of the Muskeg River watershed. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 67. 29 pp. |
| 68 | AS 1.5.3 | 80-2164 | Fanaki, F., R. Hoff, L. Barrie, R. Mickle, M. Lusis, K. Anlauf, A. Gallant, J. Kovalick, F. Froude, J. Markes, J. Arnold, S. Melnichuk, A. Moser, and D. Bagg. 1979. Air system summer field study in the AOSERP study area, June 1977. Prep. for the Alberta Oil Sands Environmental Research Program by Atmospheric Environment Service. AOSERP Report 68. 248 pp. |

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†**The toxicity of waters produced during in-situ recovery of oil from the Athabasca Oil Sands as determined by the microtox bacterial system,** by E. Peake and A. MacLean; paper presented at the Ninth Annual Aquatic Toxicity Workshop, Edmonton, Alberta, 1982 November 02-05. 8 pp.

**Tree-ring analysis by PIXE for a historical record of soil chemistry response to acidic air pollution,** by A.H. Legge, H.C. Kaufmann, and J.W. Winchester; Nuclear Instruments and Methods in Physics Research B3(1984)507-510 (North-Holland, Amsterdam). 1984.

**Urban Valley Air Pollution**, by K.D. Hage; Volume of Conference Papers: Second Joint Conference on Applications of Air Pollution Meteorology and Second Conference on Industrial Meteorology, 1980 March 24-28, New Orleans, LA, 515-519.

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**Wind-snow relations at Marmot Creek, Alberta**, by D. Storr; Canadian Journal of Forestry Research 3:479-485. 1973.

## NON-RMD REPORTS ALSO AVAILABLE FROM RMD

The following publications may also be obtained free of charge from the Research Management Division.

Alberta. Department of Environment. Research Secretariat. 1975. **Proceedings of a conference on the environmental effects of oil and salt water spills on land.** Sponsored by Alberta Environment, Research Secretariat and the University of Calgary. 1975 November 06 to 07; Banff, Alberta. 327 pp.

Alberta. Department of Environment. 1982. **Symposium/Workshop proceedings: acid forming emissions in Alberta and their ecological effects.** Sponsored by Alberta Environment, Canadian Petroleum Association and the Oil Sands Environmental Study Group. 1982 March 09 to 12; Edmonton, Alberta. 648 pp.

Technical Committee for the Long Range Transport of Atmospheric Pollutants in Western Canada. 1981. **Western Canada LRTAP activities: annual report 1981.** 20 pp.

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## RECLAMATION RESEARCH TECHNICAL ADVISORY COMMITTEE (RRTAC) REPORTS

The Reclamation Research Technical Advisory Committee consists of eight members representing the Alberta government departments of Agriculture, Energy and Natural Resources, and Environment, and the Alberta Research Council. Research projects results are made available through publication of reclamation research reports. These reports are available, for a fee, from:

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| Report | Price | Reference |
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| RRTAC 79-1 | N/C | Reclamation Research Technical Advisory Committee. 1979. **Reclamation research funding application procedures.** Edmonton, Alberta. Report RRTAC 79-1. 14 pp. |
| RRTAC 79-2 | $5.00 | Ziemkiewicz, P.F., C.A. Dermott, and H.P. Sims, eds. 1979. **Proceedings: Workshop on native shrubs in reclamation.** Edmonton, Alberta; 1978 November 22. Alberta Land Conservation and Reclamation Council, Reclamation Research Technical Advisory Committee. Report RRTAC 79-2. 104 pp. |
| RRTAC 80-1 | $5.00 | Sadasivaiah, R.S. and J. Weijer. 1979. **Test plot establishment; native grasses for reclamation.** Prep. for the Alberta Land Conservation and Reclamation Council, Reclamation Research Technical Advisory Committee. Edmonton, Alberta. Report RRTAC 80-1. 19 pp. |
| RRTAC 80-2 | $5.00 | Ziemkiewicz, P.F. 1980. **Alberta's Reclamation Research Program - 1979.** Edmonton, Alberta. Report RRTAC 80-2. 22 pp. |
| RRTAC 80-3 | $5.00 | Cameron, N.S.C., B.L. Baker, H. Hsu, S.A. Telang, P.M. Wallis, and G.W. Hodgson. 1980. **The role of organic compounds in salinization of Plains coal mining sites.** Prep. for the Alberta Land Conservation and Reclamation Council, Reclamation Research Technical Advisory Committee. Report RRTAC 80-3. 46 pp. |

* **Indicates report no longer available from Queen's Printer.**

| Report | Price | Reference |
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| RRTAC 80-4 | $5.00 | Ziemkiewicz, P.F., S.K. Takyi, and H.F. Regier, eds. 1980. **Proceedings: Workshop on reconstruction of forest soils in reclamation.** Edmonton, Alberta; 1980 April 08-09. Alberta Land Conservation and Reclamation Council, Reclamation Research Technical Advisory Committee. Report RRTAC 80-4. 160 pp. |
| RRTAC 80-5 | $5.00 | Watson, L.E., R.W. Parker, and P.F. Polster. 1980. **Manual of plant species suitability for reclamation in Alberta** (2 vols.). Prep. for the Alberta Land Conservation Council, Reclamation Research Technical Advisory Committee. Edmonton, Alberta. Report RRTAC 80-5. 560 pp. |
| RRTAC 81-1 | $5.00 | Ziemkiewicz, P.F. 1981. **The Alberta Government's Reclamation Research Program - 1980.** Edmonton, Alberta. Report RRTAC 81-1. 25 pp. |
| RRTAC 81-2 | $5.00 | Walker, D.G. and R.L. Rothwell. 1981. **1980 Survey of reclamation activities in Alberta.** Prep. for the Alberta Land Conservation Council, Reclamation Research Technical Advisory Committee. Edmonton, Alberta. Report RRTAC 81-2. 76 pp. |
| RRTAC 81-3 | $5.00 | Ziemkiewicz, P.F., R. Stein, R. Leitch, and G. Lutwick, eds. 1981. **Proceedings: Workshop on coal ash and reclamation.** Edmonton, Alberta; 1981 April 29 - 30. Alberta Land Conservation Council, Reclamation Research Technical Advisory Committee. Report RRTAC 81-3. 253 pp. |
| RRTAC 82-1 | $5.00 | Sims, H.P. and C.B. Powter. 1982. **Land surface reclamation: an international bibliography** (2 vols.). Prep. for the Alberta Land Conservation Council, Reclamation Research Technical Advisory Committee. Edmonton, Alberta. Report RRTAC 82-1. 292 pp. |
| RRTAC 82-2 | $5.00 | Powter, C.B. and H.P. Sims. 1982. **A bibliography of baseline studies in Alberta: Soils geology, hydrology, and groundwater.** Prep. for the Alberta Land Conservation Council, Reclamation Research Technical Advisory Committee. Edmonton, Alberta. Report RRTAC 82-2. 97 pp. |
| RRTAC 82-3 | $5.00 | Ziemkiewicz, P.F. 1982. **The Alberta Government's Reclamation Research Program - 1981.** Edmonton, Alberta. Report RRTAC 82-3. 22 pp. |

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| RRTAC 83-1 | $5.00 | Monenco Consultants Limited. 1983. **Soil reconstruction design for reclamation of oil sand tailings.** Prep. for the Alberta Land Conservation Council, Reclamation Research Technical Advisory Committee. Edmonton, Alberta. Report RRTAC 83-1. 185 pp. |
| RRTAC 83-2 | $5.00 | Ziemkiewicz, P.F. 1983. **The Alberta Government's Reclamation Research Program - 1982.** Edmonton, Alberta. Report RRTAC 83-2. 25 pp. |
| RRTAC 83-3 | $5.00 | Hardy Associates (1978) Limited. 1983. **Evaluation of pipeline reclamation practices on agricultural lands in Alberta.** Prep. for the Alberta Land Conservation Council, Reclamation Research Technical Advisory Committee. Edmonton, Alberta. Report RRTAC 83-3. 205 pp. |
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